**12th ESS Populations Unit Test Revision**

Explain: Give a detailed account, including reasons or causes

Describe: Give a detailed account

Calculate: Obtain a numerical answer showing the relevant stages of working

Analyze: Break down in order to bring out the essential elements or structure

**Ecological Populations**

2.6.1 Explain the concepts of limiting factors and carrying capacity in the context of population growth  
  
2.6.2 Describe and explain S and J population curves  
  
2.6.3 Describe the role of density-dependent and density-independent factors, and internal and external factors, in the regulation of populations

2.6.4 Describe the principle associated with survivorship curves including, K- and r-strategists

**Succession**

4.1.5 Explain the relationships among ecosystem stability, diversity, succession and habitat  
  
2.6.5 Describe the concept and processes of succession in a named habitat  
  
2.6.6 Explain the changes in energy flow, gross and net productivity, diversity, and mineral cycling in different stages of succession  
  
2.6.7 Describe factors affecting the nature of climax communities

**Human Populations**

3.1.1 Describe the nature and explain the implications of exponential growth in human populations  
  
3.1.2 Calculate and explain, from given data, the values of crude birth rate, crude death rate, fertility, doubling time and natural increase rate  
  
3.1.3 Analyze age/sex diagrams showing demographic transition models  
  
3.1.4 Discuss the use of models in predicting the growth of human populations  
  
3.7.1 Explain the difficulties in applying the concept of carrying capacity to local human populations  
  
3.8.1 Explain the concept of an ecological footprint as a model for assessing the demands that human populations make on their environment  
  
3.8.2 Calculate from appropriate data the ecological footprints of a given populations, stating the approximations and assumptions involved  
  
3.8.3 Describe and explain the differences between the ecological footprints of two human populations, one form LEDC and one from MEDC  
  
3.8.4 Discuss how national and international development policies and cultural influences can affect human population dynamics and growth  
  
3.8.5 Describe and explain the relationships between population, resource consumption and technological development, and their influence on carrying capacity and material economic growth